

A New Method of Inspecting the Welded Joints of
Austenitic Steel Steam Pipes, by M. R. Gubanov,
V. F. Puskhin. UNCLASSIFIED

RUSSIAN, per, Energomashinostroenie, Vol III, No 5,
May 1957, pp 22-25.

SLA 59-21517
Navy Tr 1653/Buships 640

Sci - Engr
Mar 58

59,753

ACC TW 2971
2nd ed (1957) 11-51

A Double-Bladed Water Turbine, by Sh. P.
Mikhanovskiy.

RUSSIAN, per, Energomashinostronle, Vol III, No 8,
1957, pp 1-4.

Co-op Tr Sch Tr 422

Sci - Engr
Mar 58

59,347

Generalized Characteristics of Butterfly
Valves With Flattened Discs, by I. B. Yan'shin.

RUSSIAN, per, Energomash, No 9, 1957, pp 18-21.

MLL M 3892

Sol - Electron
Mar 63

226,606

Deflections and Stresses in Welded Composite
Diaphragms With Narrow Blades, by U. G. Koifman,
V. D. Pashchichny.

RUSSIAN, per, Energomash, Vol III, No 9, 1957,
pp 30-34.

DSIR LIJ M.1913
(loan)

Sci - Engr

Oct 60

130,751

Determination of the Resistance of Materials to
Cavitation by Means of a Magnetostriction Vibrator,
by M. M. Piznarevskiy, A. P. Ershov, 8 pp.

UNCL

RUSSIAN, por, Energiyamash, No 9, 1957, pp 38, 39.

Sci Mus Lib 58/1531

Sci - Electronics; Phys
Mar 59

NIC 6.25 82 P50009208-V

82,444

Defects in the Experimental Determination of the
Efficiency of Water Turbines and Other Hydromachines,
by N. M. Shechapov, UCL

RUSSIAN, per, Energomash Stroenie, No 10, 1957,
pp 23-26.

DSIR/32848/CT

See Draw Lib 1179

Sci - Engr
Feb 59

81,428

CONTACTLESS STRAIN GAUGE, BY K. V. FROLOV.

RUSSIAN, PER, ENERGOMASH, VOL 111, NO 12,
1957, P 42.

NLL M. 4777

SCI - ENGR

JUL 62

203,009

Calculation of Heat Transfer to Water and Steam
Near the Critical Point, by Z. L. Miropolskiy, M. E.
Shitsman.

RUSSIAN, per, Energomashin, Vol IV, No 1,
1958, pp 8-11.

✓
Z *UKAEA Windscale Tr 53

on loan only

Sci - Phys
May 63

The Calculation and Aerodynamic Testing of
Regulating Valves, by S. N. Silkarbul. UNCL

FURSIAN, per, Energomashinostroyeniye, No 1,
1958, pp 12-15.

DSLR 34163/CT

Sci - Engr
Mar 59

83,389

60-23034

Stopkiy, S. V.
THE EFFECT OF FLOW EXCITATION ON THE
DEVELOPMENT OF CAVITATION IN HYDROTUR-
BINES (Vliyaniye Vozmushcheniy Potoka na Razvitiye
Kavitatsii v Gidroturbinakh). Aug 58 [16]p. (foreign
text included) 9 refs. M1392.
Order from LC or SLA ml\$2.40; ps\$3.30 60-23034

Trans. of Energomashinostroyeniye (USSR) 1958 [v. 4]
no. 3, p. 24-27.

Experiments show that under conditions of strong
excitation during cavitation the turbine efficiency
increases.

1. Turbines--Cavitation
 2. Vibration--Physical effects
 3. Cavitation--Acoustic factors
- I. Stopkiy, S. V.
II. DSIR LLJ M.1392

Office of Technical Services

(Engineering--Mechanical, TT, v. 5, no. 3)

Comparative Erosion-Resistance Tests on Some Types of
Steel and Cast Iron, by Z. P. Shulman. UNCLASSIFIED

RUSSIAN, per, Energomashinostroyeniye, ~~Vol~~ No 4, 1958,
pp 32-35.

*DSIR/TCL 113

Sci - Min/Met
Nov 58

Flow Round a Butterfly Valve and the Effect of
the Impact on the Valve, by B. I. Yan'shin.

RUSSIAN, per, Energomash, No 5, 1958, pp 6-9.

NLL M 3/91

Sci - Electron
Mar 63

226,605

Measurement of Attenuation Decrements with a
Magnetic Induction Pickup.

RUSSIAN, per, Energomashinostroenie, No. 6
1958, pp. 16-19.

CIA X 7106

Nov 69

396,051

The Coefficients of the Transfer of Heat to Boiling
Water at Excessive Pressures, by V. M. Borishanskiy.
UNCL

RUSSIAN, per, Energi Mashinostroyeniye, No 7,
1958, pp 5-9.

DSIR LIU RTS 1074
12a. 6a.

Bcl - Phys
Sep 59

95, 858

Calculation of the Effect of Body Thickness in the
Blade Design and Profiling of the Blades of Radial-
Axial Turbine Engines, by M. Ya. Baier. UECI.

RUSSIAN, par, Zhuravskiy, No 7, 1958, pp 16-18.

DEIN LIAI TTS 1299

(70. 64.)

801 - EMP

Mar 60

111,086

THE NITRIDING OF E1723 AND 15KH1MF
STEELS FOR HIGH TEMPERATURE OPERATION, BY
YA. M. GITEL'ZON, ET AL.

RUSSIAN, PER, ENERGO MashIN, VOL IV, NO 7,
1958, PP 32-35.

DSIR RTS 1837

11 - ENGR

173,186

NOV 61

Analytical Determination of the Coefficient of
Disk Friction in the Turbulent Region, by N. N.
Kupryashin, 8 pp.

RUSSIAN, per, Energomash, Vol IV, No 8, 1958,
pp 17-19.

ATS-75136R

Sci

OTB, Vol IEE, No 8

Apr 61

RJ-7820

145,136

Design of Jet Jumps (Ejectors, by XXXX
S. A. Antonovich, 18 pp.

RUSSIAN, per, Energomashinostroy, No 9,
1958, pp 8-13. 9678090

FTD-TT-62-449

Sci. Engr
Sep 62

209,701

Measurement of the Intensity of Acoustic Radiation
in Water Flow During the Cavitation, by L. S.
Smuglyakov. UNCL

RUSSIAN, per, Energiyamash, No 9, 1958, pp 23-27.

DSIR LIU RTE 1002
12s. 6a.

8:1 - Phys
May 59

87, 894

Butterfly Valves for High Heads, by B. I. Yan'shin.

UNCL

RUSSIAN, D. P., Energi Mashinostroyeniye, No 11,
1958, pp 20-24.

DSIR LIJ NTS 1085

12s. 6d.

Scl - Engr
Sep 59

95,843

The Soviet 3,000 H.P. Diesel Engine (D-100)
Series for Naval Propulsion and Railway
Traction; Rational Methods of Blowing the
9-D-100, 3,000 H.P. Engine; Tests on the New
3,000 H.P. Traction Diesel Engine (9-D-100), by
A. S. Esherbeyn, B. N. Strunge, 5 pp.

HEISEMAN, par, Engineering, Vol IV, No 11, 1958,
pp 31-35, Vol V, No 1, 1959, pp 42-44. (abstracts).

RLA 60-13890

Sci
Vol. IV, No 8
29 May 62

198,238

(2238-N)

French Conference on High-Temperature Materials, by
L. M. Liberman, Ye. M. Levin, 10 pp.

MESELE, per, Energiya i Stroyeniye, No 11,
Leningrad, 1978, pp 40-44.

JUNE 1978-N

USSR
Tech
Mar 59

82,976

The Effect of Flow Rotation and Angle of
Attack on the Inlet Side of a Centrifugal
Compressor Rotor, by S. P. Livanov. UNCL.

RUSSIAN, per, Energiya, No 12, 1958,
pp 15-20.

DSIR LDU RTS 1219

(128. 68.)

Sol. - Engr
Feb 60

107214

Shubenko-Shubin, L. A.
MOVING BLADES IN THE LAST STAGES OF HIGH-
POWER SOVIET TURBINES (Rabochie Lopatki
Poslednikh Stupeney Sovetskikh Moshchnykh Parovykh
Turbin). Feb 62 [20]p. RTS 2002.
Order from OTS or SLA \$1.60

62-15838

Trans. of Energi Mashinostroenie (USSR) 1959 [v. 5]
no. 1, p. 3-8.

DESCRIPTORS: Steam turbine blades, Steam turbine
rotors, *Steam turbines, Design, Stresses, Vibration,
*Turbines.

A short survey is presented of the work carried out
at the S. M. Kirov Khar'kov Turbine Works on the
design of rotor blades for the last stages of VKT-100
and PVK-150 turbines.

(Machinery--Engines, TT, v. 7, no. 10)

62-15838

I. Shubenko-Shubin, L. A.
II. RTS-2002
III. Department of Scientific
and Industrial Research
(Gt. Brit.)

Office of Technical Services

Method for the Comparison of Bundles of Tubes
With Wire Ribs, by A. P. Salikov, et al.

RUSSIAN, per, Energomashinostroyenie, No 1,
1959, pp 20, 21.

*AEC

Sci - Engr
Apr 62

Investigation of the Pressure and Stresses
Acting on the Runner Blade of Hydraulic
Turbines at the Narva Hydroelectric Power
Station, by N. N. Kovalov, et al. UNCL

RUSSIAN, per, Energiash, No 1, 1959,
pp 29-32.

DSIR LIA/ RUS 1113

10s. Od. anywhere

99,454

Sol - Engr
Oct 59

Investigation of the Temperature Distribution and
Axial Clearances in Steam Turbines Under Operating
Conditions, by N. M. Gorelkin.

RUSSIAN, per, ~~Energomashinostroenie~~, No 2, 1959,
pp 1-9.

Sci - Engr

Nov 59

~~SECRET~~
In-house ch. 11a
re EM-59/2.1

On the Calculation of the Strenght of Volutes of
Centrifugal Pumps, by M.A. Rudis.

RUSSIAN, per, Energomashinostroenie, Vol 5, No 2, 1959, p

p 1-32

MLL/2301.91 1960 657

Sci -

Aug 67

336,840

Methods of Increasing the Quality of Manufacture
and Operation of Turbine Gear Reductors, by
A. M. Korniyenko, 10 pp.

RESUME, Enginering, Vol V, No 2,
1954, pp 37-39.

9

ATB-12138R

Sci
Scp 61

169,129
RT - 3321

On the Problem of the Design of High Speed
Hydraulic Turbines, by T. A. Alexandrova,
N. B. Chechel'.

RUSSIAN, per, Energomashinostroyeniye, Vol V,
No 3, 1959, pp 13-17.

DSIR LIU RTS 1321

Sci - Engr

Oct 60

128,733

Notch Sensitivity During Creep, by I. I. Trunin.

GE RUSSELN, per, Energiashinostroyeniye, Vol V,
No 4, 1959, pp 21-26.

AEI T/1469

Sci
Jun 63

The VKF-100 Khar'kov Turbine Plant, by
A. V. Lazarenko.

RUSSIAN, per, Energomashinoostroeniye,
Vol V, No 6, 1959, pp 1-7.

NLL Ref: 9022.03 1964 (3367)
(loan copy)

Sci
Sep 64

Thermal Resistance of Turbine-Blade Root Joints,
by O. T. Il'chenko, V. M. Kapinos.
RUSSIAN, per, Energomashinstroeniye, Vol V, No 6,
1959, pp 23-26. 9694895
DDC RSIC261

FTD-77-63-680

CASTI - IT 64-71435

Sci - Engr

Oct 64

268,321

(NY-3005).

Conference on the Static Strength of Turbo-Machine
Elements, by V. I. Rozenblyum/ 3 pp.

RUSSIAN, per, Energomashinostroy, No 6, 1959, p 30.

JPRS-2153-N

Sci - Engr
Jan 60

106,091

Effect of Degree of Reaction on Energy Losses
in a Turbine Stage, by I. I. Kirillov,
R. V. Kuznetsov.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 1-7.

DSIR LNU M.1736
(loan)

Sci - Engr

Oct 60

130,749

Investigation of Double-Crown Velocity Stages in
Steam Turbines, by Yu. Ya. Kachuriner.

RUSSIAN, per, Energomashinostroyeniya, Vol V, No 7,
1959, pp 7-12.

DSIR LRU M.1886
(loan)

Sci - Engr

128,900

Oct 60

Nozzle Efficiency in Diaphragms With Narrow
Blades, by M. F. Fedorov, Yu. I. Pogorelov.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 12-14.

DSIR LLM M.1830
(loan)

Sci - Engr

Oct 60

130,748

A Method for Designing Turbine Blade Grids,
by M. I. Zhukovskiy.

RUSSIAN, par, Energiya, Vol V, No 7, 1959,
pp 14-18.

DSIR LIT M.1794
(1000)

Sci - Engr

Oct 60

130,747

The Theoretical Basis for the Selection of
Permissible Surface Roughness in the Manufacture
of Turbine Blades, by N. M. Markov.

RUSSIAN, per, Energiomash, Vol V, No 7, 1959,
pp 18-22.

DSIR LIU M.1411

(loan)

OTS 66-17881

Sci - Engr

Oct 60

130,746

On the Leakage Through the Axial Clearance
in a Turbine Stage, by A. M. Zavadovsky.

RUSSIAN, per, Energiash, Vol V, No 7, 1959,
pp 26, 27.

DSIR LIU M.1737
(loan)

Sci - Engr

Oct 60

130,745

Improving the Profiles of Long Blades in Steam
Turbines, by D. I. Marozov.

RUSSIAN, per, Energomashinostroenie, Vol V, No 7,
1959, pp 28, 29.

DSIR LLU M.1735
(loan)

Sci - Engr

Oct 60

128,901

The Effect of Starting Conditions on the Strength
of Turbine Discs, by A. P. Dinerman.

RUSSIAN, per, Energomashinostroyeniye, Vol V, No 8,
1959, pp 31-34.

DSIR LLU M.1973
(loan)

Sci - Engr

Oct 60

130,755

61-23089

Bordakov, V. T.
THE USE OF TURBOCHARGERS WITH A VARIABLE-
NOZZLE TURBINE IN DIESEL ENGINES (Primeneniye
Turbokompresorov s Reguliruyemy Turbinoy dlya
Nedavno Issey). June 61 [11 p. 2 refs. RTS 1843.
Order from OTS at SLA \$1.60 61-23089

Trans. of Energiyashinostroyeniye (USSR) 1959 (v. 5)
no. 9, p. 6-8.

DESCRIPTORS: *Diesel engines, *Turbines,
*Turbochargers, *Gas turbine nozzles.

An investigation of various types of turbochargers and
of the operation of the engine with a variable-nozzle
turbocharger leads to the following conclusions. In
charging small engines the best results are obtained by
using turbochargers with a radial-centripetal turbine
because this unit has a high efficiency, the turbine
wheels are cheap and easy to make (especially by using
precision casting techniques), and because its speed
(Machinery: Engines, TT, v. 6, no. 3) (over)

1. Title: Turbocharging
- I. Bordakov, V. T.
- II. RTS-1843
- III. Department of Scientific
and Industrial Research
(Gr. Brit.)

16535

Office of Technical Services

61-23665

Kryukov, V. V.
PRINCIPAL FACTORS DETERMINING THE EFFICIENCY OF TURBOCHARGING IN TWO-STROKE ENGINES (Osnovnye Usloviya Opredelyayushchie Effektivnost' Sistem Gasoturbinnogo Nadduva Dvukhtaktnogo Dvigatelya) July 61 (8)p. RTS 1849.
Order from OTS or SLA \$1.10 61-23665

Trans. of Energomashinoostroenie (USSR) 1959, v. 5, no. 9, p. 12-16.

DESCRIPTORS: *Turbines, *Turbosuperchargers, Effectiveness.

The generalized efficiency of a gas turbocharging system is determined. Structural details are discussed and the method of evaluation based on the efficiency of the system supplying gas to the turbine is described.
(Author)

(Machinery--Engines, TT, v. 6, no. 6)

I. Kryukov, V. V.
II. RTS-1849
III. Department of Scientific and Industrial Research (Ot. Brit.)

176657

Office of Technical Services

Investigation of the Blade Diffusers of
Centrifugal-Compressor Machinery, by G. N. Den.
RUSSIAN, per, Energomashinostroenie, No 10, 1959,
pp 3-7.

AEC

Sci
Mar 64

Results of an Experimental Investigation into
Unstable Operating Conditions of Compressors,
by V. N. Ershov.
RUSSIAN, per, Energomashinostroenie, No 10, 1959,
pp 8-10.

AIEC

Sci
Mar 64

Investigation of Steel Grades and the
Manufacture of Welded Steel Shafts of
Large Water Turbines, by A. S. Gel'man,
I. B. Kravtsov, V. V. Levando, et al, 12 pp.

RESEARCH, per, ~~Engineering~~ ~~Journal~~, No 12,
1959, pp 33-37. 9099510

ONS 60-5113A
PL-480

193,458

Sci Eng

STEAM-GAS-TURBINE PLANT OF 175 - 200MW CAPACITY
WITH HIGH PRESSURE STEAM GENERATORS, BY M. I.
KORNEYEV, V. P. DROBOT.

RUSSIAN, PER, ENERGOMASH, VOL. VI, NO 1, 1960,
PP 17-21.

NLL M. 6333

SCI - ENGR

NOV 62

217,687

Selection of Optimal Unit Capacities for Large
Tandem-Compound Steam Turbines, by A. V. Levin.

RUSSIAN, Izv., Energomash, Vol VI, No 1, 1960,
pp 26-32.

DSIR LLU M.2017
(loan)

Sci - Engr

Oct 60

130,744

Zver'kov, B. V.
CREEP OF TUBES UNDER COMPLEX LOADS. [1960]
5p, 611890.
Order from LC or SLA in \$1.80, pb \$1.80 61-13210

Trans. of Energomashinostroenie (USSR) 1960, v. 6,
(no. 1) p. 33-35.

142,892

61-13210

1. Steel tubing - Creep
2. Steam pipes - Creep
1. Zver'kov, B. V.
11. DSR 1140 M. 1820

(Zhurnal prikladnoy Mekhaniki, T. 5, no. 2)

Office of Technical Services

Certain Results of Experimental Research Concerning
Moisture-Catching Machinery in Steam Turbines, by
A. N. Astaf'yev, 6 pp.
RUSSIAN, per, Energomashinostroyeniye, Vol VI, No 2,
1960.

Navy Tr 3720/BuShips 838

Sci - Engr
Mar 64

250,952

A STUDY OF THE LOCAL HEAT TRANSFER OF A GAS-
TURBINE PROFILE, BY G. S. AMBROK, 9 PP.

RUSSIAN, PER, ENERGO MASHINOSTROY, NO 2, 1960,
PP 29-31. 9665939

FTD-TT-62-454

SCI - ENGR
AUG 62

207,961

(NY-2900/10)

The Technical Progress of Hydroturbine Building at
the Leningrad Metal Plant in 1959-1965, by G. S.
Shchegolev, 7 pp.

RUSSIAN, per, Energomashinostroeniye, No 3, 1960,
pp 1-1.

JPRS 5032

USSR

Econ - Technological

121,536

Aug 60

Computation of Natural Frequencies of Vibrations of Francis Turbine Runners, by A. Ya. Aronson, 15 pp.
FUSHLAN, per, Energomashinostroyeniye, No 3, 1960, pp 8-12.
CPSTI TT 67-59018

Sci-Energy Conversion
Oct 60

366,119

61-23274

I. Kostovetskii, D. L.
II. DSIR LLU M.2604

Kostovetskii, D. L.
EFFECT OF ORIGINAL ELLIPTICITY OF A SECTION OF THE FLEXURE OF A CURVED THIN-WALLED PIPE (Yani Nachal'noi Elliptichnosti Secheniya na Izgib Narivoi Tonnostnoi Truby). [1961] [14p. (foreign text included) 2 refs. [DSIR LLU] M.2604.

Order from OTS or SLA \$1.60 61-23274

Trans. of Energomashinostroenie (USSR) 1960, v. 6, no. 3, p. 23-27.

DESCRIPTORS: Pipes, Deformation, Stresses, Moments, Pressure.

Approximate formulae are derived for the determination of stresses in a curvilinear segment of a thin-walled pipe of slightly elliptical section, in the case of the simultaneous operation of bending moments and internal pressure. The adduced results of the calculation of two pipes demonstrate the substantial effect of the original ellipticity of the section.

177710

Office of Technical Services

(Mechanics, TT. v. 6, no. 4)

Sheval'skiy, R. and Vechorek, B.
NEW DESIGN OF LOW PRESSURE DIAPHRAGMS
FOR STEAM TURBINES. [1960] [10] p. 8 refs.
[DSIR ILLU] M. 2324.
Order from LC or SLA m\$1.80, ph\$1.80 61-15465

Trans. of Energiya [inostroyeniye] (USSR) 1960
[v. 6] Mar. p. 32-35.

A description is given of a new design for a blade of sheath type for low pressure diaphragms of high power steam turbines. The blade is joined to the body of the diaphragm either by welding or filling the cavity with the same material used for the body of the diaphragm. A short description is presented of preliminary efforts to devise a simple, reliable and economic production technique. (Author)

(Engineering--Mechanical, TT, v. 5, no. 12)

61-15465

1. Steam turbines--Design
2. Diaphragms (Mechanics)--Design
- I. Sheval'skiy, R.
- II. Vechorek, B.
- III. DSIR ILLU M. 2324

10661c

Office of Technical Services

Investigating the Temperature Field of a
Cooled Steam Turbine Rotor, by Ye. I. Bublikov,
V. M. Kapinos, 15 pp.

RUSSIAN, per, Energomashinostroy, No 4, 1960,
pp 8-12. 9670229

ATIC KCL-335/1

Sci - Engr

Jul 61

160,783

Investigation of Active Stages With Partial
Admission of the Working Medium, by I. E.
Terentyev.

RUSSIAN, per: Energomashin, Vol. VI, No. 4, 1960,
pp 15-17.

NIL M. 2603

Sci - Phys

180,047

Jan 62

Pump Vibration Caused by Cavitation,
by G. A. Khoshchev, 15 pp.

RUSSIAN, per, Energiya i inozhneye, No 4,
1960, pp 26-30. 9676145

FTD-IT-61-179

Sci - Engr

5 Apr 62

18⁹, 771

A Diffuser With Transverse Ribbing, by
V. K. Migai.
RUSSIAN, per, Energomashinostroyeniye,
No 4, 1960, p 31.
NLL Ref: 5828.4 1964 (10,450) (loan copy)

Sci
Aug 64

Markov, N. M. and Dobrokhotov, V. D.
THE RESULTS OF THE INVESTIGATION OF VE-
LOCITY STAGES. [1961] 12p. [DSR 1.11] M.2702.
Order from OIS or SLA \$1.60 61-23535

Trans. of Energiyamash (mostoveniye) (USSR) 1960
[v. 6] no. 5, p. 21-23.

DESCRIPTORS: "Turbines, Turbine blades, Tests,
Velocity.

Experiments at the Central Research Institute for
Boilers and Turbines showed that the velocity stages
with two rows of working blades are very economical.
With a 20 mm nozzle height and with radial seals pres-
ent the efficiencies of the two stages are 79% or better.
The effect of the first stage, having a degree of re-
action across the first row of moving blades of almost
zero, depends very little on the state of the radial
seals.

(Engineering--Mechanical), TT, v. 6, no. 4

61-23535

I. Markov, N. M.
II. Dobrokhotov, V. D.
III. DSR 1.11 M.2702

177721

Office of Technical Services

61-23534

Troyanovskiy, B. M., Kiselev, L. Ye., and
Filippova, V. G.
METHOD FOR CALCULATION OF DOUBLE-ROW
VELOCITY STAGES, tr. by J. I. Skwizynski. [1961]
[19p. 8 refs. (DSIR LILU) M 2701.
Order from OTS or SLA \$1.60

61-23534

Trans. of Energiya i Elektromekhanika (USSR) 1960, v. 5,
no. 5, p. 1-6.

DESCRIPTORS: *Steam turbines, Velocity.

Graphs and formulas are presented for determining the
efficiency of a double-row velocity stage with complete
and with partial steam admission in a wide range of
geometric and physical parameters. The method was
developed for application to the velocity stage of the
Moscow Institute for Power Engineering and is used
with a combination of blade grids (patterns) KS-1A and
KS-1B. (Translation)

(Engineering--Mechanical, TT. v. 6, no. 3)

1. Title: Double-row
velocity stages
2. Title: Turbine staging
- I. Troyanovskiy, B. M.
- II. Kiselev, L. Ye.
- III. Filippova, V. G.
- IV. DSIR LILU M. 2701

175382

Office of Technical Services

An Instrument for Measuring ~~the~~ Torque, Speed
and Power on High-Speed Turbines, by M. Ye.
Neych, A. Ye. Zaryankin,

RUSSIAN, per, Energomashinostroyeniye, No 5,
1960, pp 43-47.

*FTD-TT-61-443

Sci - Eng.

Dec 61

East Exchange During Bubble Bursting
P. P. Munchenko, 13 pp.

RUSSIAN, per, Energiomash, 10 p, 1990,
(1) 17-21, 1967-77

MD-TEL-61-155

Sci. - Phys

24 Jan 62

A Study of Nitrided 15Kh 11 M and 15Kh 12VMF Steels
After Prolonged Holding at 570°C, by A. V.
Koslenko, et al.

RUSSIAN, per, Energomashinostroyeniye, No 6, 1960,
pp 33-36.

DSIR RMS 1788

Sci

Aug 61

163,158

61-23533

Levin, A. V.
COMPUTATION OF THE FREQUENCIES OF CHARACTERISTIC VIBRATIONS OF BLADED DISKS WITH NATURALLY TWISTED BLADES (Vychislenie Chastot Svoystvennykh Kolebaniy Otkachivayemykh Diskov s Estestvenno Zakrechennymi Lopatkami) tr. by G. J. Tee. [1961] 14 p. (foreign text included) 2 refs. [DSIR LIU] M. 2700.

Order from OTS or SLA \$1.60

61-23533

Trans. of Energiya i Elektromekhanika (USSR) 1960, v. 6, no. 7, p. 1-5.

DESCRIPTORS: *Disks, Vibration, Frequency, Mathematical analysis.

A method is presented for computing the frequencies of characteristic vibrations of bladed disks with naturally twisted blades. The consideration of the twisting of the blades noticeably reduces the frequency of vibrations of disks, and gives values for the frequencies close to the experimental values.

I. Levin, A. V.
II. DSIR LIU M. 2700

Office of Technical Services

(Mechanics, TT, v. 6, no. 4)

ALL REF 9022.03 1961 (3294) (LOAN)

Turbine-Rotor Flexion in Passing Through
the First Critical Speed, by M. I.
Laypa.

RUSSIAN, per, Energomashin, Vol VI,
No 7, 1960, pp 9-12.

ILL M. 4009

Sci - Engr

Feb 62

186,578

(NY 2900/30).

A Compressor of the Nevskiy Machine Building Plant
iment Lenin, by O. M. Kiselev,

RUSSIAN, per, Energomash, July 1960, p 18.

*JPRS 7764

USSR

Econ - Technological - Machine Building

27 Sep 60

Zavadovskii, A. M., Babenko, Kh. L., and
Agafonov, V. A.
FORMING THE STAGES OF TURBINE BY MACHIN-
ING THE BLADES OF THE ORIGINAL STAGE. [1961]
[8]p. Ref. C. E. Trans, 1969; [DSIR LLU] M. 4016.
Order from OTS or SLA \$1.10 61-28188

Trans. of Energi Mashinostroenie (USSR) 1960, v. 6,
no. 7, p. 19-21.

DESCRIPTORS: *Turbine blades, Machining. Aero-
dynamics. Turbines, Operation, Design

Aerodynamic properties are derived for a series of
stages formed by machining the blades of the original
stages. (Author)

(Machinery--Engines, TT, v. 6, no. 11)

61-28188

- I. Zavadovskii, A. M.
- II. Babenko, Kh. L.
- III. Agafonov, V. A.
- IV. CE Trans-1969
- V. DSIR LLU M. 4016
- VI. Central Electricity
Generating Board
(Gt. Brit.)

1967

Office of Technical Services

(NY-2900/30)

Scientific and Technical Conference on the
Exchange of Know-How in Starting and Adjusting
Gas Turbine, by Yu. P. Grachev, 6 pp.

RUSSIAN, per, Energomash, No 7, 1960, pp 27, 28.

JPRS 7764

Sci - Engn

Mar 61

142,092

Verbin, D. S. and Shepilevsky, V. M.
 AUTOMATIC CARBON-DIOXIDE-SHIELDED ARC
 WELDING OF STEAM TURBINE DIAPHRAGMS AT
 THE Leningrad Engineering Works (Avtomati-
 cheskaya Svarka Diaphragm Parovykh Turbin v Srede
 Uglikislogo Gaza na LM7). Mar 61 [11]p. RTS 1789.
 Order from LC or SLA m\$1.80, ph\$1.80 61-19222

Trans. of Energiyashidostroyeniye (USSR) 1960 [v. 6]
 no. 7, p. 29-31.

The short experience with the automatic welding of
 steam turbine diaphragms with a carbon-dioxide-
 shielded metal arc shows that this method is an effec-
 tive means of increasing the productivity of labour and
 for improving the quality of production, which in the
 near future will completely replace the manual welding
 of these components at the Leningrad Works. (Author)

(Machinery--Manufacturing. TT. v. 5, no. 12)

61-19222

1. Arc welding--USSR
2. Steam turbines--Equipment
3. Diaphragms (Mechanics)--
Welding
- I. Verbin, D. S.
- II. Shepilevsky, V. M.
- III. RTS-1789
- IV. Department of Scientific
and Industrial Research
(O. Brit.)

160950

DATE MAR 20 1961

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61-28186

Kosyak, Yu. F. and Savukov, V. P.
 COMBATING EROSION IN THE LATER STAGES OF
 LARGE TURBINES. [1961] 9 b. 6 refs. C.E.
 Trans. 1856. [DSIR L1U] M.4013.
 Order from DTS or SLA \$1.10 61-28186

Trans. of Energiyashinostroye (USSR) 1960, v. 6,
 no. 7, p. 35-38.

DESCRIPTORS: *Turbines, Operation, Maintenance.
 *Turbine blades, Erosion, Countermeasures.

Results of studying the erosion of turbine blades in
 the later stages of the VKT-100 type turbines at the
 Khar'kovsk turbine plant obtained from examination
 of turbines after one full year in service are given.
 Erosion seems to be a function of the energy loss of
 the rotor under the impact of the comparatively slow
 moving drops of moisture. By studying the moisture
 distribution of the blade length and comparing the
 (Machinery-Engines, TT, v. 6, no. 12) (over)

- I. Kosyak, Yu. F.
- II. Savukov, V. P.
- III. CE Trans-1856
- IV. DSIR L1U M.4013
- V. Central Electricity
 Generating Board
 (Gt. Brit.)

Office of Technical Services

61-27300

Mikhailov, O. N.
 CALCULATION OF THE NATURAL FREQUENCIES
 OF VIBRATION OF ARRAYS OF STEAM-TURBINE
 BLADING (K Raschetu Chastot Svoystvennykh Kolebaniy
 Paketov Lopatok Parovoykh Turbin). July 61 [10]p.
 5 refs. RTS 1869.
 Order from OTS or SLA \$1.10

61-27300

Trans. of Energomashinostroenie (USSR) 1960 [v. 6]
 no. 8, p. 21-26.

DESCRIPTORS: "Steam turbine blades, Vibration,
 Mathematical analysis, Turbine blades.

A new method is proposed for calculating the natural
 frequencies of vibration of 1st and 2nd modes for
 arrays of steam turbine blading. Compared with the
 existing method of calculation with the same number of
 integration portions, calculation with the same number
 (Machinery--Engines, TT, v. 6, no. 10) (over)

I. Mikhailov, O. N.
 II. RTS-1869
 III. Department of Scientific and
 Industrial Research
 (Gt. Brit.)

9676.383 -
 FTD TT-61-4-15

7351

Office of Technical Services

The Compressibility of Motor Fuels, by
I. V. Astakhov, 16 pp.

RUSSIAN, per, Energ Mashinostroyeniye, No 9,
1960, pp 3-11. 9663462

FTD NCL-1288/1

Sci - Fuels, Engr

25 Oct 61.

171,845

CALCULATING LOAD DISTRIBUTION AMONGST TEETH
OF THE HERRINGBONE FASTENING OF MOVING
TURBINE BLADES, WITH ELASTIC DEFORMATION.

RUSSIAN, PER, ENERGO MASHINOSTROENIE,
VOL VI, 1960, PP 29-32.

7.0 10

NLL M.4650

SCI - EENGR

JUN 62

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INVESTIGATION OF A TWO CHAMBER CYCLONE FURNACE WITH
INTERSECTING JETS, BY A. P. KOVALEV, A. S.
IPPOLITOV.

RUSSIAN, PER, ENERGO MASH, VOL VI, NO 11, 1960,
PP 16-19.

NLL M. 6014

SCI - ENGR
OCT 62

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62-15715

Vidyakin, Yu. A.

DETERMINATION OF THE DAMPING CAPACITIES
OF HIGH-FREQUENCY BLADES AND BLADE AS-
SEMBLIES OF STEAM TURBINES. [1961] [5]p. 4 refs.
C. E. Trans. 2105; [DSIR] NLL M. 4661.

Order from OIS or SIA \$1.10

62-15715

Trans. of Energomashinstroenie (USSR) 1960, v. 6,
no. 11, p. 24-25.

DESCRIPTORS: *Steam turbine blades, *Damping,
Vibration, Stainless steel, Thermal stresses.

A statement of experimental data on the effect of the
frequency of blade vibration on damping. A conclusion
is drawn as to the possibility of estimating the damp-
ing of high-frequency blades and their assemblies from
the results of testing low-frequency specimens.

(Author)

(Machinery-Engines, TT, v. 7, no. 11)

- I. Vidyakin, Yu. A.
- II. CE Trans-2105
- III. DSIR NLL M. 4661
- IV. Central Electricity Generating
Board (Gt. Brit.)

Office of Technical Services

The Test Rig for the Experimental EPT-2
KhTZ Kirov Turbine, by I. A. Lavrov.

RUSSIAN, per, Energomashinostroyeniye,
Vol. VI, No 11, 1960, pp 25-27, 31.

NLL Ref: 9022.03 1964 (3358)
(loan copy)

Set
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Methods of Controlling the Tightening of Large
Bolts on Turbines, by A. U. Bugov,
M. I. Gal'perin.

RUSSIAN, per, Energomash, Vol. VI, No 11, 1960,
pp 28-29.

NIL M. BERT 3549

Sci - Engr
Jul 62

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NIL RPT 1000000 1100 00 00 (1000)

Some Results of Stress to Rupture Investigations
Under Conditions of Variable Stress and
Temperature, by M. P. Rozanov, E. I. Rusanova.

RUSSIAN, per, Energomash, Vol VI, Nov 1960,
pp 36-39.

MBI 2066

Sci - Engr

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May 62

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Calculation of Leakage Through Gas Turbine
Labyrinth Glands, by E. T. Hartosh.

NUSSBAUM, per, Engineering, Vol VI, No 12, 1960,
pp 22-25.

HEL M. 3328

Sci - Engr

Apr 62

192, 324

(DC-5884)

Session on Convective Heat Exchange, by V. M.
Borisshanskiy, 8 pp.

RUSSIAN, per, Energomashinostroeniye, No 12, 1960,
pp 43-45.

JPRS 8579

Sci - Engr, Phys

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Experiences in the Study and Perfection of
Nozzles for Axial Turbine-Type Machines,
by R. K. U. Bogomazov, L. A. Dorfman, 15 pp.

RUSSIAN, per, Energomash, No 1, 1961, pp 8-12.
9676286

FTD-TT-61-410

Sci - Engr

192,673

Apr 62

Comparative Data for Values of Experimental
Heat Transfer Coefficients, by G. V. Nikolayev.

RUSSIAN, per, Energiyamash, Vol VII, No 1, 1961,
pp 15-18.

MLL. N. 3541

Sci. - Chem
Jun 62

201.020

Investigation of Heat Transfer and Aerodynamic
Resistance in a Semi-industrial Model of an
Air Heater Constructed of Profile Sheets,
by E. I. Vol'per, et al.
RUSSIAN, per, Energomashinostroeniye, 1961,
no 1, pp 22-25.
NLL RTS 2482 (On Loan or Purchase)

Aug65

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The Temperature Distribution in a Partially Cooled
Root of a Turbine Blade, by B. A. Arkad'yev, 11 pp.

RUSSIAN, Enginermash, No 1, 1961, pp 38-40.

9676266

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FED/61-410

Sci - Engr

Apr 62

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Factory Rig Tests of Axial Compressors at the
Leningrad Machine Works, by P. S. Bedcher,
V. Y. M. Reznichenko.

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RUSIAN, per, Energomash, Vol VII, No 2,
1961, pp 1-5.

MLL M. 3547

Sci - Engr
Jun 62

201, 022

Comparative Investigations on Heat Transfer
and Pressure Drop of Finned Surfaces, by V. M.
Antuf'yev.

RUSSIAN, per, ~~Energomashinostroyeniye~~, Vol VII,
No 2, 1961, pp 12-16.

NIL M.3429

Sci - Engr

Apr 62

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